



mHealth and District Teams Increase Product Availability Among CHWs In Malawi

Malawi iCCM Program Overview

- iCCM nationwide strategy - initiated in Malawi in 2008
- Service provided by CHWs – called Health Surveillance Assistants (HSAs)
- HSAs are one of the lowest cadre in Malawi Civil Service - paid by MOH
- Target for implementation is HSAs in hard to reach areas - >8km from HC
- Coverage in 2014 is over 84%
- Leadership by MoH-IMCI Unit and operationalized at Districts
- Conditions – Malaria, Pneumonia, and Diarrhea
- Supply chain commodities for iCCM – ACTs, zinc and ORS and cotrimoxazole (transitioning to amoxicillin)



Problem Statement

- Poor availability of medicines
- Irrational drug management process
- Supply chain only reached health facility level
- Lack of visibility of HSA logistics data due to low reporting rates and poor movement of data
- Lack of coordination in drug management at all levels
- Weak linkages between community and health facilities



Key Quantitative Baseline Assessment Data 2010

- **27% of HSAs** who manage health products had four CCM tracer drugs* in stock on day of visit
- **43% HSAs** submitting reports that contain logistics data to HC
- **14% of HCs** reported passing HSA information to higher levels

*cotrimoxazole, artemether lumefantrine 1x6 and 2x6, ORS

Quantification / Coordination / Procurement

- MOH conducts regular annual integrated quantification
 - Most CCM products are considered under essential medicines
 - Malaria products are considered with other malaria products
- Quantification results are submitted to parliament for budgeting purposes the results of this are often unknown
- Most CCM products in recent years have been procured by different donors and projects sometimes targeting certain products or geographic areas – there is little coordination or sharing of information around this.

Product and Data Flow

cStock, a mHealth supply chain management tool, addresses data visibility challenges and streamlines the process of resupply



cStock Highlights

- CHWs text **stock on hand data** to cStock at the end of the month, replacing manual resupply forms
- The cStock database automatically **calculates the resupply quantity** and sends **via SMS** to the HC Pharmacy, saving them time
- HC sends text message to CHWs via cStock when their **order is ready** for pick-up, preventing unnecessary trips to the HC
- CHWs text cStock **receipt** confirmations, ensuring accurate record keeping
- District and Central levels **monitor resupply and stock levels** through SMS alerts and a performance dashboard, enabling proactive action when needed

Effective People

District Product Availability Teams (DPATs) encourage teamwork and motivation to use data and coordinate to improve supply chain performance.

Enhanced Management (EM)

Performance Plan

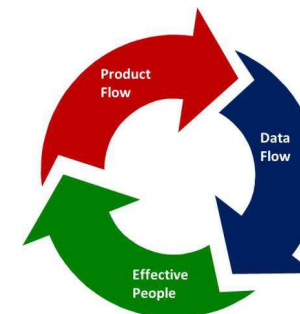
- Supply chain performance indicators and targets
- District and HC staff use cStock data and resupply worksheets to track performance
- Formal recognition system to drive SC performance
- Management diaries used to track issues and actions taken

DPAT / HPAT Meetings

- Quarterly District Meetings with District pharmacy technicians, coordinators and CHW supervisors
- Monthly HC Meetings with CHW supervisors , Drug Store in Charge, CHWs
- Topics discussed include
 - Performance plans & recognition
 - Reporting timeliness and completeness
 - Stock management , expiries & overstocks, and product availability

cStock Data

Evaluation of Pilot (6 districts) 2013



By targeting **product flow**, **data flow** and **effective people** for the community health supply chain, Malawi saw quantifiable improvements across the board.

DPAT Results

- ✓ **84%** of CHW supervisors report DPAT meetings were held
- ✓ **96%** of CHW supervisors report conducting a HPAT meeting
- ✓ **100%** of District & CHW Supervisors reported finding product availability teams useful

FGDs: “these meetings have enhanced our relationship with the in-charge,” (Kasungu HSA)

cStock Results

- ✓ **94%** of CHWs use cStock for requesting products
- ✓ **91%** of Drug Store in Charges use cStock to determine by how much to resupply CHWs
- ✓ **56%** of CHW supervisors use cStock data for performance monitoring
- ✓ All district coordinators use cStock for planning and coordination

Districts with cStock plus DPATs performed better than districts with cStock only

- ✓ Reporting rates in EM group were **10% higher** than other districts: >90% compared to >80%
- ✓ Completeness of reporting in EM groups was on average **13%** higher
- ✓ HCs in EM group took on average **7.6 days** to respond after a request compared to 13.5 days.

Product Availability Results

*cotrimoxazole, LA 1x6, LA 2x6, ORS

62% of CHWs had the 4 tracer drugs* in stock day of visit (compared to 27% BL)
CHWs in EM districts using cStock had **14% fewer stock outs or low stocks** than non-intervention districts

Success Factors

cStock and DPATs are now scaled up to 2500+ HSAs and ~ 500 HCs in 23 districts
Funds committed to achieve full scale by August 2014 (~ 650 HC, 29 districts).

- **Align objectives:** engage partners from the outset
 - clear MoH leadership and engagement of partners from the outset is key for scale up and sustainability and builds broad ownership
- **Streamline procedures:** don't increase the burden on CHWs
 - Combine the resupply processes with reporting so the CHWs value the reporting
 - Keep resupply processes and mHealth systems simple and suitable for the context
 - Use existing opportunities to improve communication and coordination, such as planning team meetings on product collection days
- **Technology alone will not solve the supply chain:** making data visible through technology is not enough to improve supply chain.
 - Combining mHealth with a structured process to review and use the data is critical as this will ensure the data is used and that staff value the tool.
- **Teamwork across the levels:** improves communication, trust and creates an environment for solving problems at local levels